

Remarks

The Office Action notes that claims 1-19 are pending in the application. Of these, claims 1-6 were withdrawn from consideration subject to an earlier restriction requirement. By this response, claim 7 has been amended. Support for the amendment to claim 7 can be found on page 8-9 of the specification and Figs. 2A-2B. Therefore, no new matter has been added. Claims 1-19 are now pending with claims 7-19 under consideration.

Independent claim 7 stands rejected as being unpatentable over three combinations of references. The first combination is Schneider et al. (EP 0838841; "Schneider") in view of Singh et al. (U.S. Pat. No. 6,042,687; "Singh"), Lee et al. (U.S. Pat. No. 6,288,493"), and Collins et al. (U.S. Pat. No. 5,556,501; "Collins"). The second combination is Schneider in view of Singh, Sato et al. (U.S. Pat. No. 5,907,221; "Sato") and Collins. The third combination is Schneider in view of Singh, Tomioka et al. (U.S. Pat. No. 5,897,713; "Tomioka") and Collins. The applicant respectfully submits that independent claim 7 is allowable over all of the cited combinations of references.

First, with respect to the combination of Schneider in view of Singh, Lee and Collins, the Applicant respectfully submits that Lee should not be applied as a prior art reference against the Applicant. 35 U.S.C. § 103(c) provides that claimed subject matter which qualifies as prior art under 35 U.S.C. § 102(e) is not be considered when determining whether an invention is obvious under 35 U.S.C. § 103 provided the subject matter and the claimed invention were commonly owned at the time the invention was made. At the time of the filing of the present application, June 15, 2001, both the present application and the Lee patent were assigned to Ju Sung Engineering Company Ltd. of Korea. Accordingly, the features that the Examiner asserts are disclosed by Lee cannot be applied as prior art against the present application. Therefore, the 103 rejection of independent claim 7 as being unpatentable over Schneider in view of Sing, Lee and Collins should be withdrawn.

Regarding the second combination, the rejection of independent claim 7 as being unpatentable over Schneider in view of Singh, Sato and Collins, the Applicant respectfully submits that the cited combination does not disclose at least one feature of independent claim 7. Specifically, the Examiner cites Sato as disclosing a plurality of antenna coils 150a-150g that are connected in parallel with each other. Independent claim 7 as amended, however, specifies that the plurality of loop-shaped antennas comprise "at least a first loop-shaped antenna having a

first diameter and a second loop-shaped antenna having a second diameter greater than the first diameter, wherein the second loop-shaped antenna surrounds the first loop-shaped antenna." Figure 6 of Sato clearly demonstrates that the reference does not disclose this configuration.

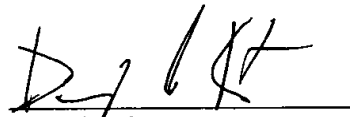
Referring now to the last combination of references, the Applicant respectfully submits that the combination of Schneider, Singh, Tomioka and Collins does not disclose at least one feature of independent claim 7. Specifically, the Examiner asserts that Tomioka discloses a plurality of spiral coils 32, 33 which are connected in parallel. A close look at Figure 5 of Tomioka indicates that the spiral coils 32 and 33 are not connected in parallel but are instead connected to each other through variable capacitor 34. Moreover, the first and second spiral coils 32 and 33 are connected to different RF power supplies 7 and 10 respectively. In contrast, the invention of claim 7 recites a plurality of loop-shaped antennas which are connected in parallel. Accordingly, the Applicant respectfully submits that claim 7 is allowable over the combination of Schneider, Tomioka, Lee and Collins.

The remaining claims are dependent either directly or indirectly on claim 7. Therefore, Applicant respectfully submits the dependent claims are allowable for the same reasons as given with independent claim 7.

In view of the aforesaid, the Applicant respectfully submits that the present application is in a condition for allowance. Favorable reconsideration is requested.

Respectfully submitted,

Dated: 12/22/03


Douglas S. Rupert
Attorney for Applicants
Reg. No. 44,434

WILDMAN, HARROLD, ALLEN & DIXON LLP
225 West Wacker Drive
Chicago, Illinois 60606-1229
Telephone: (312) 201-2000
Facsimile: (312) 201-2555

CERTIFICATE OF EXPRESS MAIL
Express Mail® mailing label number ER 022529174 US
Date of Deposit: 12/22/03
hereby certify that this paper or fee is being deposited with the
United States Postal Service "Express Mail Post Office to
Addressee" on the date indicated above and is addressed to
the Commissioner for Patents, P.O. Box 1450 Alexandria, VA
22313-1450. Christine A. Daellinger